

## ABSTRACT

1       A hot-swap device applicable to the ATA interface comprises at least an  
2   integrated drive electronics (IDE) hard disk drive controller for processing IDE  
3   instructions transferred from the ATA interface, wherein at least a program code is  
4   provided to the IDE hard disk drive controller for the same to execute and respond  
5   to the ATA interface "a virtual storage device" in the case of lacking a real storage  
6   device connected to the IDE hard disk drive controller directly or via the ATA  
7   interface, or if a "real storage device" is connected with the IDE hard disk drive  
8   directly or via the ATA interface, the ATA interface will receive response from the  
9   "real storage device".